

IN THE CLAIMS:

The following claim listing replaces all previous claim listings.  
Please amend claims 1, 3, 5, 6, 8, 10, 11, 15-17, 21 and 24 as follows:

Claim 1. (currently amended) A method for generating speech recognition models, the method comprising:

- receiving a first speech recognition model based on a first set of recorded phonemes training data, the first set of recorded phonemes training data originating from ~~a first set of common entities~~ a plurality of female speakers;
- receiving a second speech recognition model based on a second set of recorded phonemes training data, the second set of recorded phonemes training data originating from ~~a second set of common entities~~ a plurality of male speakers;
- determining a difference in model information between the first speech recognition model and the second speech recognition model; and
- creating ~~an~~ a gender-independent speech recognition model based on the first set of recorded phonemes training data and the second set of recorded phonemes training data if the difference in model information is insignificant.

Claim 2. (original) The method of claim 1, wherein whether the model information is insignificant is based on a threshold model quantity.

Claim 3. (currently amended) The method of claim 1, wherein determining the difference in model information includes calculating a Kullback Leibler distance between the first speech recognition model and second speech recognition model.

Claim 4. (original) The method of claim 3, wherein whether the model information is insignificant is based on a threshold Kullback Leibler distance quantity.

Claim 5. (currently amended) The method of claim 1, wherein the first speech recognition model, second speech recognition model, and gender-independent speech recognition model ~~models~~ are Gaussian mixture models.

Claim 6. (currently amended) A system for generating speech recognition models, the method comprising:

a first speech recognition model based on a first set of training data, the first set of training data originating from a first set of  
5 common entities;

a second speech recognition model based on a second set of training data, the second set of training data originating from a second set of common entities; and

a processing module configured to create an independent speech  
10 recognition model based on the first set of training data and the second set of training data if the difference in model information between first speech recognition model and the second speech recognition model is insignificant.

Claim 7. (original) The system of claim 6, wherein whether the model information is insignificant is based on a threshold model quantity.

Claim 8. (currently amended) The system of claim 6, wherein the processing model is further configured to calculate a Kullback Leibler distance between the first speech recognition model and second speech recognition model.

Claim 9. (original) The system of claim 8, wherein whether the model information is insignificant is based on a threshold Kullback Leibler distance quantity.

Claim 10. (currently amended) The method of claim 6, wherein the first speech recognition model, second speech recognition model, and independent speech recognition model ~~models~~ are Gaussian mixture models.

Claim 11. (currently amended) A computer program product embodied in computer memory comprising:

computer readable program codes coupled to the computer memory for generating speech recognition models, the computer readable program  
5 codes configured to cause the program to:

receive a first speech recognition model based on a first set of training data, the first set of training data originating from a first

set of common entities;

10 receive a second speech recognition model based on a second set of training data, the second set of training data originating from a second set of common entities;

determine a difference in model information between the first speech recognition model and the second speech recognition model; and

15 create an independent speech recognition model based on the first set of training data and the second set of training data if the difference in model information is insignificant.

Claim 12. (original) The computer program product of claim 11, wherein whether the model information is insignificant is based on a threshold model quantity.

Claim 13. (original) The computer program product of claim 11, wherein determining the difference in model information includes calculating a Kullback Leibler distance between the first model and second model.

Claim 14. (original) The computer program product of claim 13, wherein whether the model information is insignificant is based on a threshold Kullback Leibler distance quantity.

Claim 15. (currently amended) The computer program product of claim 11, wherein the first speech recognition model, second speech recognition model, and independent speech recognition model ~~models~~ are Gaussian mixture models.

Claim 16. (currently amended) A system for generating speech recognition models, the method comprising:

5 a first speech recognition model based on a first set of training data, the first set of training data originating from a first set of common entities;

a second speech recognition model based on a second set of training data, the second set of training data originating from a second set of common entities; and

10 means for creating an independent speech recognition model based on the first set of training data and the second set of training data

if the difference in model information between first speech recognition model and the second speech recognition model is insignificant.

Claim 17. (currently amended) A method for recognizing speech ~~data~~ from ~~a data~~ an audio stream originating from one of a plurality of data classes, the method comprising:

- receiving a current feature vector of of the audio stream;
- 5     computing a current vector probability that the current feature vector belongs to one of the plurality of data classes;
- computing an accumulated confidence level that the ~~data~~ audio stream belongs to one of the plurality of data classes based on the current vector probability and on previous vector probabilities;
- 10    weighing class models based on the accumulated confidence; and
- recognizing the current feature vector based on the weighted class models; and
- wherein the plurality of data classes include a female speech recognition model based on recorded phonemes originating from plurality
- 15 of female speakers, a male speech recognition model based on recorded phonemes originating from plurality of male speakers, and a gender-independent speech recognition model based on recorded phonemes originating from plurality of both female and male speakers having insignificant differences in information.

Claim 18. (original) The method of claim 17, wherein computing the current vector probability includes estimating an a posteriori class probability for the current feature vector.

Claim 19. (original) The method of claim 17, wherein computing the accumulated confidence level further comprising weighing the current vector probability more than the previous vector probabilities.

Claim 20. (original) The method of claim 17, further comprising determining if another feature vector is available for analysis.

Claim 21. (currently amended) A system for recognizing speech data from ~~a data~~ an audio stream originating from one of a plurality of data classes, the system comprising:

- a receiving module configured to receive a current feature vector
- 5    of the audio stream;

a first computing module configured to compute a current vector probability that the current feature vector belongs to one of the plurality of data classes;

10 a second computing module configured to compute an accumulated confidence level that the ~~data~~ audio stream belongs to one of the plurality of data classes based on the current vector probability and on previous vector probabilities;

a weighing module configured to weigh class models based on the accumulated confidence; and

15 a recognizing module configured to recognize the current feature vector based on the weighted class models; and

20 wherein the plurality of data classes include a first speech recognition model based on recorded phonemes originating from a first set of speakers, a second speech recognition model based on recorded phonemes from a second set of speakers, and a third speech recognition model based on recorded phonemes originating from both the first and second set of speakers having insignificant differences in information.

Claim 22. (original) The system of claim 21, wherein the first computing module is further configured to estimate an a posteriori class probability for the current feature vector.

Claim 23. (original) The system of claim 21, wherein the second computing module is further configured to weigh the current vector probability more than the previous vector probabilities.

Claim 24. (currently amended) A computer program product embodied in computer memory comprising:

5 computer readable program codes coupled to the computer memory for recognizing speech data from ~~a data~~ an audio stream originating from one of a plurality of data classes, the computer readable program codes configured to cause the program to:

receive a current feature vector of the audio stream;

compute a current vector probability that the current feature vector belongs to one of the plurality of data classes;

10 compute an accumulated confidence level that the ~~data~~ audio stream belongs to one of the plurality of data classes based on the current vector probability and on previous vector probabilities;

weigh class models based on the accumulated confidence; and  
 recognize the current feature vector based on the weighted class  
 15 models; and  
wherein the plurality of data classes include a first speech  
 recognition model based on recorded phonemes originating from a first  
 set of speakers, a second speech recognition model based on recorded  
 phonemes from a second set of speakers, and a third speech recognition  
 20 model based on recorded phonemes originating from both the first and  
second set of speakers having insignificant differences in information.

Claim 25. (original) The computer program product of claim 24,  
 wherein the program code configured to compute the current vector  
 probability includes program code configured to determine an a  
 posteriori class probability for the current feature vector.

Claim 26. (original) The computer program product of claim 24,  
 wherein the program code configured to compute the accumulated  
 confidence level includes program code configured to weigh the current  
 vector probability more than the previous vector probabilities.

Claim 27. (original) The computer program product of claim 24,  
 further comprising program code configured to determine if another  
 feature vector is available for analysis.